

**National Load Despatch Centre
Total Transfer Capability for May 2014**

Issue Date: 29/04/2014

Issue Time: 1830 hrs

Revision No. 6

Corridor	Date	Time Period (hrs)	Total Transfer Capability (TTC)	Reliability Margin	Available Transfer Capability (ATC)	Long Term Access (LTA)/ Medium Term Open Access (MTOA) #	Margin Available for Short Term Open Access (STOA)	Changes in TTC w.r.t. Last Revision	Comments	
NR-WR *	1st May 2014 to 31st May 2014	00-24	2500	500	2000	297	1703		Margin revised due to incorporation of existing Power Allocation.	
WR-NR	1st May 2014 to 31st May 2014	00-17	4200	500	3700	3992	0		Margin revised due to Commissioning of Sasan Unit-4.	
		23-24					0			
		17-23					0			
NR-ER*	1st August 2014 to 31st August 2014	00-06	1000	200	800	293	507		Margin revised due to incorporation of existing Solar Power Allocation to SR, ER, NER constituents between 6 hrs - 18 hrs in LTA figures and allocation data available on RPCs RTA/REA.	
		06-17'			800	423	377			
		17-18'	1100		900	423	477			
		18-23			900	293	607			
		23-24			800	293	507			
ER-NR ⁵	1st May 2014 to 31st May 2014	00-17	3800	300	3500	2431	1069		Margin revised considering the LTA/MTOA allocation available in RPCs RTA/REA.	
		23-24					1069			
		17-23					1069			
W3-ER	1st May 2014 to 31st May 2014	00-24	1800	300	1500	551	949		Margin revised due to incorporation of existing LTA/MTOA allocation available in RPCs RTA/REA and Re-routing of existing MTOA granted by CTU.	
ER-W3	1st May 2014 to 31st May 2014	00-24	1000	300	700	874	0		Margin revised due to incorporation of existing LTA/MTOA allocation available in RPCs RTA/REA	
WR-SR	1st May 2014 to 31st May 2014	00-24	1000	0	1000	1000	0			
SR-WR *	1st May 2014 to 31st May 2014	00-24	1000	0	1000	0	1000			
ER-SR	1st May 2014 to 31st May 2014	00-06	750	0	750	593	157		Margin revised due to incorporation of existing Solar Power Allocation to Karnataka between 6 hrs-18 hrs in LTA figures.	
		18-24					638			112
SR-ER *	1st May 2014 to 31st May 2014	00-17	1100	0	1100	197	903			
		23-24					903			
		17-23					903			
ER-NER ²	1st May 2014 to 31st May 2014	00-06	720	50	670	205	465		Margin revised considering the LTA/MTOA allocation available in RPCs RTA/REA and due to incorporation of existing Solar Power Allocation to Assam.	
		23-24					460			
		06-17'	720				210			380
		17-18	640				210			385
NER-ER	1st May 2014 to 31st May 2014	00-17	530	100	430	0	430			
		23-24					450			
		17-23					450			
S1-S2	1st May 2014 to 31st May 2014	00-24	5650	400	5250	5150	100	-550	Margin revised due to Non-Commissioning of Kudankulam U-1, Vallur U-3 unit and NLC-2 EXP units and Allocation of 150 MW to TANGEDCO.	
Import of Punjab	1st May 2014 to 31st May 2014	00-24	5600	300	5300	3800	1500			
Import TTC for DD & DNH	1st May 2014 to 31st May 2014	00-24	980	0	980	LTA and MTOA as per ex-pp schedule				
W3 zone Injection	1st May 2014 to 31st May 2014	00-17	9000	200	8800	6901	1899			
		23-24			9300		2399			
		17-23			9300		2399			

* Fifty Percent (50 %) Counter flow benefit on account of LTA/MTOA transactions in the reverse direction would be considered for advanced transactions (Bilateral & First Come First Serve).

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\$ As per Simulations, predominant direction of flow is on West to North Corridor. Hence, in case injection point is in Western Region (W1,W2,W3), STOA/PX transactions from West to North on West-East-North corridor shall not be allowed as such transaction increases congestion in the West to North Corridor.

- 1) ER-SR TTC declared at Talcher Interconnector and Gazuwaka HVDC B/B seam
- 2) S1 comprises of AP and Karnataka: S2 comprises of Tamil Nadu, Kerala and Pondicherry
- 3) W3 comprises of the following regional entities :
 - a) Chattisgarh Sell transaction, b) Jindal Power Limited (JPL) Stage-I & Stage-II, c) Jindal Steel and Power Limited (JSPL), d) ACBL, e) LANCO Amarkantak
 - f) BALCO, g) Sterlite (#1,3,4), h) NSPCL, i) Korba, j) Sipat, k) KSK Mahanadi, L)DB Power, m) KWPCCL, n)Vandana Vidyut

The figure is based on LTA/MTOA approved by CTU and Allocation figures as per RPCs RTA/REA. In actual Operation, due to Units being on Maintenance/ Fuel shortage/New units being commissioned the LTA/MTOA utilized would be vary. RLDC/NLDC would factor this situation on day-ahead basis. In the eventuality that net schedules exceed ATC, real time curtailments might be effected by RLDCs/NLDC.

In case of TTC Revision due to any shutdown :

- 1) The TTC value will be revised to normal values after restoration of shutdown.
- 2) The TTC value will be revised to normal values if the shutdown is not being availed in real time.

2. ER-NER Total Transfer capability will be reduced to 450 MW in case of outage of any one of the 400kV Purnea-Biharshariff circuit.

Limiting Constraints

Corridor	Constraint
NR-WR	(n-1) contingency of 400kV Zerda-Bhinmal and (n-1) contingency of 220kV Badod-Modak.
WR-NR	High loading of 765 kV Agra-Gwalior (1250 MW SPS setting on each circuit of 765 kV Gwalior-Agra) and high loop flows on 400kV Kankroli-Zerda and 400kV Bhinmal-Zerda.
NR-ER	(n-1) contingency of 400 kV Allahabad-Pusauli
ER-NR	(n-1) contingency of 400 kV Kahalgaon-Biharshariff
W3-ER	(n-1) contingency of 400kV Sterilte-Rourkela S/C
ER-W3	High loading of 400 kV Raipur-Bhadrawati T/C, Bhilai-Bhadrawati S/C, Bhilai-Koradi and Bhilai-Seoni* (n-1) contingency of 400kV Raigarh-Sterlite
WR-SR & ER-SR	1. Commissioning of 765kV Raichur-Sholapur S/C 2. Based on the operational experience after the synchronization of SR grid with NEW grid and due to inadvertent variation of 765kV Raichur-Sholapur line flow, observation of Low Frequency Oscillations(LFO) 3. Considering transfer capability assessment by CTU on NEW-SR corridor.
SR-WR	Bhadrawati HVDC B/B link capacity
SR-ER	
ER-NER	(n-1) contingency of 400 kV Kahalgaon-Biharshariff (during Off-Peak Hours) (n-1) contingency of one circuit of 400 kV Balipara – Bongaigaon D/C (during Peak Hours)
NER-ER	(n-1) contingency of 400/220 kV, 2x315 MVA ICTs at Misa
S1-S2	(n-1) contingency of 400 kV Kolar-Hosur D/C line, 400kV Hosur-Salem S/C and 400kV Somanahalli-Salem S/C line.
Import of Punjab	(n-1) contingency of ICT at Patiala/Moga
W3 zone Injection	(n-1) contingency of 400 kV Raipur-Wardha-Parli Section

*Primary constraints

Simultaneous Import Capability

Corridor	Date	Time Period (hrs)	Total Transfer Capability (TTC)	Reliability Margin	Available Transfer Capability (ATC)	Long Term Access (LTA)/ Medium Term Open Access (MTOA)	Margin Available for Short Term Open Access (STOA)	Changes in TTC w.r.t. Last Revision	Comments
ER									
NR	1st May 2014 to 31st May 2014	00-17 23-24	8000	800	7200	6423	777		Margin revised due to Commissioning of Sasan Unit-4 & Considering the LTA/MTOA allocation available on RPCs website.
		17-23	8000		7200		777		
NER ²	1st May 2014 to 31st May 2014	00-06 23-24	720	50	670	205	465		Margin revised considering the LTA/MTOA allocation available in RPCs RTA/REA and due to incorporation of existing Solar Power Allocation to Assam
		06-17'	720		670	210	460		
		17-18	640		590	210	380		
		18-23	640		590	205	385		
WR									
SR	1st May 2014 to 31st May 2014	00-06 18-24	1750	0	1750	1593	157		Margin revised due to incorporation of existing Solar Power Allocation to Karnataka between 6 hrs-18 hrs in LTA figures.
		06-18'	1750		1750	1638	112		

2. ER-NER Total Transfer capability will be reduced to 450 MW in case of outage of any one of the 400kV Purnea-Biharshariff circuit.

Simultaneous Export Capability

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Corridor	Date	Time Period (hrs)	Total Transfer Capability (TTC)	Reliability Margin	Available Transfer Capability (ATC)	Long Term Access (LTA)/ Medium Term Open Access (MTOA)	Margin Available for Short Term Open Access (STOA)	Changes in TTC w.r.t. Last Revision	Comments
NR*	1st May 2014 to 31st May 2014	00-06	3500	700	2800	590	2210		Margin revised due to incorporation of existing Solar Power Allocation to SR, ER, NER constituents between 6 hrs -18 hrs in LTA figures and allocation data available on RPCs RTA/REA.
		06-17'	3500		2800	720	2080		
		17-18	3600		2900	720	2180		
		18-23	3600		2900	590	2310		
		23-24	3500		2800	590	2210		
NER	1st May 2014 to 31st May 2014	00-17 23-24	530	100	430	0	430		
		17-23	550		450		450		
WR									
SR*	1st May 2014 to 31st May 2014	00-17 23-24	2100	0	2100	197	1903		
		17-23	2100		2100		1903		

* Fifty Percent (50 %) Counter flow benefit on account of LTA/MTOA transactions in the reverse direction would be considered for advanced transactions (Bilateral & First Come First Serve).

Limiting Constraints

NR	Import	(n-1) contingency of 400 kV Kahalgaon-Biharshariff High loading of 765 kV Agra-Gwalior (1250 MW SPS setting on each circuit of 765 kV Gwalior-Agra) and high loop flows on 400kV Kankroli-Zerda and 400kV Bhinmal-Zerda.
	Export	(n-1) contingency of 400kV Zerda-Bhinmal and (n-1) contingency of 220kV Badod-Modak. (n-1) contingency of 400 kV Allahabad-Pusauli
NER	Import	(n-1) contingency of 400 kV Kahalgaon-Biharshariff (during Off-Peak hours) and (n-1) contingency of one circuit of 400 kV Balipara – Bongaigaon D/C (during Peak Hours)
	Export	(n-1) contingency of 400/220 kV, 2x315 MVA ICTs at Misa
SR	Import	1. Commissioning of 765kV Raichur-Sholapur S/C 2. Based on the operational experience after the synchronization of SR grid with NEW grid and due to inadvertent variation of 765kV Raichur-Sholapur line flow, observation of Low Frequency Oscillations(LFO). 3. Considering transfer capability assessment by CTU on NEW-SR corridor.
	Export	

*Primary constraints

ASSUMPTIONS IN BASECASE

Month : May '14

S.No.	Name of State/Area	Load		Generation	
		Peak Load (MW)	Off Peak Load (MW)	Peak (MW)	Off Peak (MW)
I	NORTHERN REGION				
1	Punjab	5971	5191	2258	2229
2	Haryana	5885	5116	3178	3178
3	Rajasthan	7955	6916	5132	5116
4	Delhi	4102	3566	1296	1296
5	Uttar Pradesh	11500	10090	6358	6354
6	Jammu & Kashmir	2133	1854	387	420
7	Uttarakhand	1628	1415	461	416
8	Himachal Pradesh	1413	1228	469	385
9	Chandigarh	238	192	0	0
10	ISGS/IPPs			18314	13943
	Total NR	40825	35568	37853	33337
II	EASTERN REGION				
1	West Bengal	4920	4680	4920	3644
2	Jharkhand	1070	850	580	420
3	Orissa	3745	2780	3180	2160
4	Bihar	1770	1500	0	0
5	Damodar Valley Corporation	2670	2350	3752	3336
6	Sikkim	96	32	0	0
7	Bhutan	108	110	494	484
8	ISGS/IPPs	245	250	7253	7344
	Total ER	14624	12552	20179	17388
III	WESTERN REGION				
1	Chattisgarh	3400	2700	1629	1629
2	Madhya Pradesh	7728	5521	3632	3013
3	Maharashtra	16790	15516	13037	11828
4	Gujarat	12301	11245	11178	9102
5	Goa	367	257		
6	Daman and Diu	264	245		
7	Dadra and Nagar Haveli	590	585		
8	ISGS/IPPs	1258	1240	17391	16068
	Total WR	42698	37309	46867	41640

IV	SOUTHERN REGION				
1	Andhra Pradesh	11603	10209	7716	6690
2	Tamil Nadu	11969	10938	7142	6612
3	Karnataka	8415	6979	6440	4970
4	Kerala	3314	2552	1724	893
5	Pondy	329	276		
6	Goa	84	83		
7	ISGS/IPPs			10873	10054
	Total SR	35714	31037	33895	29219
V	NORTH-EASTERN REGION				
1	Arunachal Pradesh	120	84	0	0
2	Assam	1350	980	240	200
3	Manipur	120	84	0	0
4	Meghalaya	310	217	60	55
5	Mizoram	75	52.5	4	4
6	Nagaland	120	84	12	12
7	Tripura	250	130	110	110
8	ISGS/IPPs			1188	938
	Total NER	2345	1631.5	1614	1319
	Total All India	136206	118098	140408	122903